

REMARKS

Rejections under 35 U.S.C. 112

Claims 2, 16-18, and 57 are rejected under 35 U.S.C. 112, second paragraph, for being indefinite.

Claims 2, 16-18, and 57 have been canceled without disclaimer or prejudice. Applicant submits that canceled claims 2, 16-18, and 57 fully address the Examiner's rejections under 35 U.S.C. 112.

Rejections under 35 U.S.C. 102(b)

Claims 1, 2, 56, 57, 65 and 66 are rejected under 35 U.S.C. 102(b) as being anticipated by Mihara et al., U.S. Patent No. 5,482,822, hereafter referred to as the '822 patent.

Claims 1, 2, 56, and 57 have been canceled without disclaimer or prejudice.

Independent claims 65 and 66 have been amended to include the limitations of dependent claim 4 or 5. The Examiner has indicated that dependent claims 4, 5, 27, 28, 59, and 60 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. The amendments made to independent claims 65 and 66 are consistent with the current amendments to change dependent claims 4 and 5 into independent claims 4 and 5. The optical device of currently amended independent claims 4 and 5 includes optical devices of solar window films, mirrors, security markings, and optical switch devices. Support for these amendments to claims 65 and 66 can be found, for example, on page 3, lines 15-21; page 8, lines 28-31; page 13, lines 5-8; page 15, lines 11-13; page 16, lines 2-4 and 12-17; and page 19, lines 5-8, of the application. The limitations of either claim 4 or claim 5 are included in the amendments to claims 65 and 66.

The Examiner states that the '822 patent of Mihara et al. discloses an infrared-absorptive compound and optical recording medium making use of the same comprising of an infrared reflective layer [that] comprises an organic radical cation compound, which

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radical cation compound exhibits a reflectance in the infrared region from 1250 nm to 1700 nm (col. 136, lines 43-45). Col. 136, lines 43-45, of the '822 patent reads "The compound thus obtained was a compound with a region of large absorption in the infrared region at 1,255 nm and 960 nm each." There is no suggestion or teaching in the '822 patent to Mihara et al. of an organic radical cation compound that provides reflectance in the infrared region from 1250 nm to 1700 nm of the instant invention. Absorption and reflectance are distinctly different and contrasting optical properties. According to Webster's New Universal Unabridged Dictionary, Second Edition, 1972, Simon & Schuster, New York, New York, absorption in physics is "(a) a taking in and not reflecting" and reflection in physics is "the change in direction which a ray of light, radiant heat, sound, or other form of radiant energy, experiences when it strikes upon a surface and is thrown back into the same medium from which it approached."

In view of the amendments to independent claims 65 and 66 and the above remarks, Applicant respectfully requests that the rejection of claims 65 and 66 under 35 U.S.C. 102(b) as being anticipated by Mihara et al. ('822 patent), be withdrawn.

Claims 9-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Oguchi et al. (U.S. Patent 4,921,780A) in view of Mihara et al. The Examiner has placed this rejection under the heading of Claim Rejections – 35 USC 103 in the Office Action. Applicant has moved the response to this section for Rejections under U.S.C. 102(b) since the Examiner's wording most suggests a 35 U.S.C. 102(b) rejection.

Claims 9, 16-18, 25, and 26 have been canceled without disclaimer or prejudice.

The Examiner has indicated that claim 27 would be allowable if rewritten into an independent form to include all of the limitations of the base claim 9 and any intervening claims. Dependent claims 10, 11 and 19 have been amended to directly depend on amended independent claim 27 that has been amended, as described in the above sentence, to put it into a condition for allowance. Original dependent claims 12-15 depend on amended dependent claim 11 which has been amended, as described in the above sentence, to put it into a condition for allowance. Original dependent claims 20-24 depend directly or indirectly on amended dependent claim 19 which has been amended, as described above in this paragraph, to put it into a condition for allowance.

Without the teaching of the infrared reflectance of an organic radical cation compound in the infrared region from 1250 nm to 1700 nm in Mihara et al. ('822 patent), as described above in this section, it would not have been obvious at the time the invention was made by a person having skill in the art to construct an optical device having such infrared reflectance using a radical cation compound as disclosed by Oguchi et al. (U.S. Patent 4,921,780A).

Dependent claims 10, 11 and 19 to amended base claim 27 now depend on a base claim that has been amended to put it into a condition for allowance. Dependent claims 12-15 to amended claim 11 now depend on a dependent claim that has been amended to put it into a condition for allowance. Dependent claims 20-24 to amended claim 19 now depend directly or indirectly on a dependent claim that has been amended to put it into a condition for allowance. In view of the amendments to dependent claims 10, 11, 19, and 27, and the above remarks, Applicant respectfully requests that the rejection of claims 10-15 and 19-24 under 35 U.S.C. 102(b) and/or 103(a) as being anticipated by Oguchi et al. (U.S. Pat. 4,921,780A) in view of Mihara et al. ('822 patent), be withdrawn.

Applicant submits that the cancellation of claims 9, 16-18, 25, and 26, the amendments to claims 10, 11, 19, and 27, and the above remarks, fully address the Examiner's rejections under 35 U.S.C. 102(b) and the rejection of claims 9-26 as being anticipated by Oguchi et al. (U.S. Pat. 4,921,780A) in view of Mihara et al. ('822 patent)..

Rejections under U.S.C. 103(a)

Claims 3, 6-8, 55, 58 and 61-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mihara et al. ("822 patent"), as applied to claim 1 above, in view of Kitayama et al. (U.S. Patent 6,475,590).

Claims 3 and 58 have been canceled without disclaimer or prejudice.

The Examiner has indicated that claim 4 would be allowable if rewritten into an independent form to include all of the limitations of the base claim 1 and any intervening claims. Dependent claims 6-8 and 55 have been amended to directly depend on amended

independent claim 4 that has been amended, as described in the above sentence, to put it into a condition for allowance.

The Examiner has indicated that claim 59 would be allowable if rewritten into an independent form to include all of the limitations of the base claim 56 and any intervening claims. Dependent claims 61-64 have been amended to directly depend on amended independent claim 59 that has been amended, as described in the above sentence, to put it into a condition for allowance.

The Examiner states that the '822 patent of Mihara et al. discloses an infrared-absorptive compound and optical recording medium making use of the same comprising of an infrared reflective layer [that] comprises an organic radical cation compound, which radical cation compound exhibits a reflectance in the infrared region from 1250 nm to 1700 nm (col. 136, lines 43-45). Col. 136, lines 43-45, of the '822 patent reads "The compound thus obtained was a compound with a region of large absorption in the infrared region at 1,255 nm and 960 nm each." There is no suggestion or teaching in the '822 patent to Mihara et al. of an organic radical cation compound that provides reflectance in the infrared region from 1250 nm to 1700 nm of the instant invention. Absorption and reflectance are distinctly different and contrasting optical properties. According to Webster's New Universal Unabridged Dictionary, Second Edition, 1972, Simon & Schuster, New York, New York, absorption in physics is "(a) a taking in and not reflecting" and reflection in physics is "the change in direction which a ray of light, radiant heat, sound, or other form of radiant energy, experiences when it strikes upon a surface and is thrown back into the same medium from which it approached."

Without the teaching of the infrared reflectance of an organic radical cation compound in the infrared region from 1250 nm to 1700 nm in Mihara et al. ('822 patent), it would not have been obvious at the time the invention was made to a person having skill in the art to construct an optical device having such infrared reflectance using an aminium salt used in the radical cation compound as disclosed by Kitayama et al. (U.S. Patent 6,475,590).

Dependent claims 6-8 and 55 to amended base claim 4 now depend on a base claim that has been amended to put it into a condition for allowance. Dependent claims 61-64 to amended base claim 59 now depend on a base claim that has been amended to

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put it into a condition for allowance. In view of the amendments to dependent claims 6-8, 55, and 61-64 and the above remarks, Applicant respectfully requests that the rejection of claims 6-8, 55, and 61-64 under 35 U.S.C. 103(a) as being unpatentable over Mihara et al. ('822 patent), in view of Kitayama et al. (U.S. Patent 6,475,590), be withdrawn.

Applicant submits that the cancellation of claims 3 and 58, the amendments to claims 6-8, 55, and 61-64, and the above remarks fully address the Examiner's rejections under 35 U.S.C. 103(a).

Allowable Subject Matter

The Examiner has indicated that claims 29-40, 42-44 and 49-54 are allowed.

The Examiner has objected to claims 4, 5, 27, 28, 59 and 60 as being dependent upon a rejected base claim, but stated that they would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4, 5, 27, 28, 59 and 60 have been amended into an independent form including all of the limitations of the base claim and any intervening claims.

In view of the amendments to claims 4, 5, 27, 28, 59 and 60 into amended independent claims, Applicant respectfully requests that the objections to claims 4, 5, 27, 28, 59 and 60, be withdrawn.

CONCLUSION

Claims 4-8, 10-15, 19-24, 27-40, 42-44, 49-55, and 59-66 are now pending in this application. Applicant believes that, in view of the above amendments and remarks, pending claims 4-8, 10-15, 19-24, 27-40, 42-44, 49-55, and 59-66 are allowable, and such action is respectfully requested. If any matters remain unresolved, the Examiner is invited to contact the Applicant's undersigned representative.

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Respectfully submitted,

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